



APE-FACE User's Guide

Preliminary - 2/1/84

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1. INTRODUCTION.

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Thank you for selecting the APE-FACE for your printer interface needs. The APE-FACE XLP is used to connect any parallel printer with your Atari 400/800, 600XL or 800XL computer. The APE-FACE 12XLP is designed for the Atari 1200XL computer. The APE-FACE will work with all Atari hardware and software. It is similiar to the Atari 850 interface modual.

A Centronics style parallel interface is used so that installation and operation are very simple. By following the instructions in this manual you should have no problems with installing and using your new interface. If you do experience difficulty please contact your dealer for assistance.

2. INSTALLATION:



Installation of the APE-FACE is as easy as plugging in a cable. However, to prevent any possible damage to your computer, printer, or interface, please follow these few steps.

XLP and 12XLP.

1. Turn off the power to the computer and all peripherals.
2. Plug the flat ribbon cable into the connector on the back of the printer. Please note this connector will fit one way only. DO NOT FORCE THE CONNECTOR.
3. Plug the longer round cable into your Atari serial peripheral port. Again note that it will only fit one way. DO NOT FORCE THE CONNECTOR. (See note below regarding daisy chaining)
4. Turn power on to all equipment.

The velcro strips included with the APE-FACE can be used to mount the plastic box to the side of your printer, under a desk, or where ever you see fit.

This completes the installation of the XLP interface. You are now ready to start printing! Please read on if you have an Atari 1200XL computer.

12XLP ONLY.

You must first unplug the power cord of the Atari wall transformer from the computer. This should be then plugged into either one of the two power jacks on the side of the 12XLP. The APE-FACE 12XLP is supplied with an additional cord to supply current to the computer. This cord is to be plugged in between the APE-FACE 12XLP and your 1200XL computer. The APE should be in-line with the Atari transformer. Installation is now complete.

NOTE: The XLP and 12XLP are designed to be the last peripheral in the Atari serial daisy chain. Therefore, plug the APE-FACE into the last available serial port which is usually on a disk drive.

3. OPERATION.



After installing the APE-FACE, you may start printing right away. To output files to the printer simply execute normal print commands. If your printer is not performing the line feed function (printing over and over on the same line), you will have to change a dip switch setting inside the printer (see below).

BASIC programming language.

To execute output commands under BASIC either the LPRINT statement or the OPEN, PRINT# statements may be used. LPRINT is the easiest to use. The test the printer type in the following short program.

```
10 LPRINT "This is a test of the APE-FACE."  
20 PRINT "IT WORKS!"  
30 END
```

Then type "RUN" (return). The printer should have printed "This is a test of the APE-FACE." and on the screen, the words "IT WORKS!" should appear.

ATARIWRITER word processing program.

For correct output to the printer under the ATARIWRITER program, be sure to select PRINTER OPTION #3. This option is meant for all other printers besides those of Atari's.

410 Cassette operation.

Both the 410 cassette recorder and the APE-FACE XLP and 12XLP are end of daisy chain devices. You can't have both peripherals connected at the same time. Therefore, to operate the 410 with a printer do the following.

- 1) Plug in the 410, load your program and then unplug the 410.
- 2) Plug in the APE-FACE, hit SYSTEM RESET.
- 3) Print!

GRAPHICS.

The APE-FACE is compatible with all Atari software but graphics require special mention. The Atari graphics character set is unique to Atari. Printer manufacturers also have unique printer graphics character sets. The problem is that Atari graphics must be converted to graphics the printer can understand. The easiest way to do this is to purchase software which allows Atari computers to print graphics on a particular printer.

You can, of course, write your own software but for \$34.95 a program called HUMPTY DUMP from Kidstuff Software is a great buy. Contact our sales department for more details.

3. OPERATION. (cont.)

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When writing your own graphics routines the End of line character (9B Hex) can not be sent to the APE-FACE. The EOL character will cause the APE-FACE to send a carriage return character (0D Hex) to the printer and delete the remainder of the current block of data stored within the APE-FACE.

Besides the above mentioned precaution, all data received by the APE-FACE is transferred directly through to the printer.

PROBLEMS.

If you get an ERROR 138 (Device time out) message, the Atari is not recognizing the APE-FACE as being ready and online. Check all connections and make sure power is turned on. Try again after resetting all equipment. If you can't get it working please call your dealer for help.

NOTE: Most printers feature dip switches which allow you to configure the printer with different computers. If your printer is not performing the LINE FEED function consult the printer manual for proper setting of the dip switch. Normally, the switch will be set to "LINE FEED FROM HOST" and should be changed to "AUTO LINE FEED" for use with the Atari.

4. TECHNICAL INFORMATION.

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A. Technical Product Description.

The microprocessor-based APE-FACE allows interconnection of an industry-standard parallel printer with the Atari line of computers. The APE-FACE communicates bi-directionally with the Atari using a real-time TTL-level serial protocol. Printer data is extracted from the received information, converted into a standard parallel format, and sent to the printer.

The printer handler located in the Atari operating system controls the APE-FACE. This printer handler is called into action through normal use of printer-related instructions. The APE-FACE never loads software into the Atari, thus eliminating any chance of software conflict.

B. Specifications.

INTERFACE:	- Centronics parallel standard - ATARI serial - Power source (12XLP only)
SIZE:	- 4.37"L, X3.25"W,X1.5"H - 15" ribbon cable/connector - 4' round cable/connector
POWER:	- 5V, .8W (Model XLP) - 9 VAC, 1VAC (Model 12XLP)
Environment:	- Operating Temp. 10 C to 40 C - Storage Temp. -20 C to 70 C

C. Input.

Pin-out of the Atari connector (from the computer) is given below.

<u>PIN NUMBER</u>	<u>FUNCTION</u>	<u>PIN NUMBER</u>	<u>FUNCTION</u>
1	ATARI CLOCK IN	8	MOTOR CONTROL
2	ATARI CLOCK OUT	9	+5V
3	DATA INPUT	10	+5V/READY
4	GROUND	11	AUDIO INPUT
5	DATA OUTPUT	12	+12V *
6	GROUND	13	+5V
7	COMMAND		

* Not found on the Atari 1200XL

4. TECHNICAL INFORMATION. (cont.)



D. Output.

Pin-out of the printer connector from the APE-FACE is below.

<u>PIN NUMBER</u>	<u>FUNCTION</u>	<u>PIN NUMBER</u>	<u>FUNCTION</u>
1	STROBE *	19	GND
2	DATA 1	20	GND
3	DATA 2	21	GND
4	DATA 3	22	GND
5	DATA 4	23	GND
6	DATA 5	24	GND
7	DATA 6	25	GND
8	DATA 7	26	GND
9	DATA 8	27	GND
10	N/C	28	GND
11	BUSY	29	GND
12	PAPOUT	30	GND
13	N/C	31	N/C
14	GND	32	ERROR *
15	GND	33	GND
16	GND	34	N/C
17	N/C	35	N/C
18	N/C	36	N/C

This represents a standard Centronics parallel interface scheme. However, some printers do not use the 36 pin connector and a special cable must be either purchased or made.

N/C - no connection GND - ground * - Active low signals.

5. WARRANTY.



To provide complete service on your APE-FACE, our Customer Service Department MUST have record of warranty registration.

PLEASE READ, COMPLETE, and MAIL the Limited Warranty Information and Registration form as soon as possible.

Contact your dealer BEFORE returning the APE-FACE for service.

LIMITED WARRANTY INFORMATION.

Digital Devices Corporation warrants to the original consumer/purchaser that this Digital Devices product shall be free from any defects in materials or workmanship for a period of one (1) year from the date of purchase. If any defect is discovered within the warranty period, Digital Devices sole obligation will be to repair or replace, at its election, the equipment free of charge on receipt of the product and a copy of the bill of sale (properly packed and shipping prepaid).

This warranty covers any and all product defects incurred in normal use of the equipment but does not apply in the following cases:

- a) Loss or damage to the equipment due to abuse, mishandling, accident or failure to follow operation instructions.
- b) If the equipment has been serviced or modified by other than an authorized service center.
- c) If the equipment has been damaged by being used with any products not supplied by Digital Devices Corporation.

No implied warranty, including merchantability or fitness for a particular purpose, applies to this product after one year, and no other express warranty or guarantee, except as previously mentioned, given by any person, firm or corporation, with respect to this product, shall bind Digital Devices Corporation.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the limitations or exclusions set forth may not apply to you. This warranty gives you specific legal rights, and you may also have rights which vary from state to state.

6. USER & WARRANTY REGISTRATION.

Thank you for purchasing a 'DIGITAL DEVICE'. To provide complete service on your equipment, we must have record of warranty registration. Please take a few moments to complete this warranty registration card and RETURN IT PROMPTLY!



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 13787 ATLANTA, GA.

POSTAGE WILL BE PAID BY ADDRESSEE

DIGITAL DEVICES
CORPORATION
151 6th STREET
SUITE 127 OKEEFE
ATLANTA, GA 30313



WARRANTY AND USER REGISTRATION

Apeface Model # _____ Date Purchased _____

Purchased From _____

Name _____

Address _____

City _____ State _____ Zip _____

Phone (_____) _____

Computer(s): ☐ 400 ☐ 800 ☐ 1200XL ☐ 600XL ☐ 800XL
 ☐ 1400 XL ☐ 1400XLD ☐ Other _____

Storage: ☐ 810 # _____ ☐ 410 ☐ 1010 ☐ 1050
 ☐ Other _____

Modem: ☐ 1030 ☐ Other _____

Printer: _____ Misc: _____

Comments and Suggestions: _____

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